ABSTRACT

5   A virtual oven efficiently conducts stress testing of large numbers of modules. The virtual oven includes a logical grouping of modules, a controller, test instruments and a database which are all connected via a network. The logical groupings of modules of several virtual ovens may be physically accommodated within a single environmental stress screening room. Switching between modules in a logical group permits a single

10   test piece of test equipment to be time-shared among the modules in the logical group. The method of burn-in testing a logical group of modules rotates a test sequence, including passive and active test cycles, between the modules. A test signal is split and supplied to multiple modules. Passive testing may be performed by monitoring parameters of the module while the test signal is supplied to the module. Active testing

15   may be a functional test of the module in which the test signal is supplied to, processed by, and output from the module. Such test signals output from the modules are switched to the test equipment on a time-share basis. In this way, the number or expensive test equipment set-ups may reduced. The controller for each virtual oven also generates displays so that a user can track the test progress of all modules within the virtual oven.

20   The controller also builds a database of the active and passive tests for each module. A graphical user interface may be used to interact with the virtual oven, control the testing, and view the database.